

**ABSTRACT**

In a core structure of a heat exchanger, tubes and corrugated fins are alternately arranged between sheet plates arranged opposite to each other with a predetermined space interposed therebetween. End portions of the tubes are inserted into tube holes formed respectively in each of the top and bottom sheet plates to be fixed. On the sheet plates, there are provided connection portions having wall portions slanting from main body portions thereof toward the tube holes. When a thickness of the tubes is 0.13 mm to 0.23 mm, a slant angle  $\theta$  of the wall portions of the connection portions is set to satisfy: slant angle  $\theta$  ( $^{\circ}$ )  $\geq 25 \times (\text{thickness (mm) of sheet plate}) + (-125 \times (\text{thickness (mm) of tube}) + 25)$